

Sleep Disorders

PROJECT ECHO

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Sleep-Wake Disorders

DSM-5

Dysomnias

- Insomnia Disorder
- Hypersomnolence Disorder
- Narcolepsy
- Breathing-Related Sleep Disorders
- Circadian Rhythm Sleep-Wake Disorders

Parasomnias

- Non-REM Sleep Arousal Disorders
- Nightmare Disorders
- REM Sleep Behavior Disorder
- Restless Legs Syndrome
- Substance/Medication-Induced Sleep Disorder

Normal Sleep Amounts

Age	Total Sleep Time - Hours
Newborn (0-2 months)	10 – 19 hours
Infants (2 – 12 months)	9-10 hours at night + 3-4 hours of nap
Toddlers (1 -3 years)	9.5 – 10.5 hours at night + 2-3 hours of nap
Preschool (3 -5 years)	9 – 10 hours
School Age (6 -12 years)	9 – 10 hours
Adolescents (13 – 18 years)	9 – 9.5 hours (most get 7 – 7.5 hours)

Infants

- Big Changes – newborn wakes every 2-4 hours and a 12 month old sleeps 10 hours
- Change in sleep cycle from sleeping all day to sleeping at night – 1st 2 to 3 weeks for example: Waking child at 2-3 hour intervals during day; exposure to light; quiet darkness at night
- 1st 6 months child should be placed on back – reduce risk of SIDS

Infants

- 1st 6 months child should be placed on back – reduce risk of SIDS; at 6 months most infants can roll over
- Co-sleeping – convenient for frequent night time feeding; once child sleeps for 6-8 hours becomes more choice than necessity; co-sleeping results in more arousals for child and parent
- 10% of parents report infant sleep habits cause significant stress on family

Toddlers

- Sleep consolidates – move from 2 naps per day at age 1 to none by age 4
- Bedtime is 1st real parenting challenge for most parents
- 70% of toddler's parents report toddlers wake them up at night
- Bedtime behavior shaped by firm & gentle expectations and positive reinforcement

Preschool & School Age Children

- Sleep habits have become ingrained

Issues:

- Fears
- Electronics (43% of children have TV's in room)
- Enuresis – 90% of children are dry by age 6 years and 97% by age 12 years; spontaneous “cure” rate of 15% per year
- Enuresis intervention: alarm strategies most effective (75% at 4 weeks); retention control training; proactive waking; DDAVP – short term

Adolescents

- Average 11th grader gets 6.9 hours/night sleep
- ¼ teenagers report falling asleep in class weekly
- 89% of 7th graders stay up to do homework
- Only 44% of 12th graders stay up to do homework; most stay up to socialize
- Demands of academics, sports, extracurricular activities, peers – expectations from society
- Caffeine use

Sleep Hygiene

All Ages:

- Regular schedule
- Cool, dark, quiet sleep environment
- Morning light exposure

Infants & Toddlers:

- Regularly schedule naps
- Bedtime routine – transitional objects help
- Avoid sleeping in non-bed environment
- Avoid bright light in bedroom

Sleep Hygiene

Children:

- Reduce stimulating play at bedtime
- Routine bedtime routine
- No electronics in bedroom

Teenagers:

- Appropriate bedtime – target 9 hours of sleep
- Arise at reasonable time
- No caffeine after noon
- Curfew on messaging

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Other:

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Dysomnias

Insomnia Disorder

Insomnia Disorder:

A predominant complaint of dissatisfaction with sleep quantity or quality, associated with one (or more of the following):

- Difficulty initiating sleep
- Maintaining sleep
- Early morning awakening

Dysomnias

Hypersomnolence Disorder

Hypersomnolence Disorder:

Self-reported excessive sleepiness despite a main sleep period lasting at least 7 hours, with at least one of the following:

- Recurrent periods of sleep or lapses into sleep within the same day
- Prolonged main sleep episode of at least 9 hours that is nonrestorative
- Difficulty being fully awake after abrupt awakening

Dysomnias

Narcolepsy

Recurrent periods of an irrepressible need to sleep, lapsing into sleep, or napping occurring within the same day. Must occur 3 times per week over 3 months with at least one of the following:

- Episodes of cataplexy
- Hypocretin deficiency measured in CSF
- Nocturnal sleep polysomnography with REM latency less than 15 minutes

Dysomnias

Breathing Related Sleep Disorders

Obstructive Sleep Apnea:

Polysomnography of at least 5 apneas per hour of sleep and either:

- Nocturnal Breathing Disturbance – snoring, gasping, breathing pauses
- Daytime sleepiness, fatigue or unrefreshing sleep

Central Sleep Apnea – apnea without obstruction

Dysomnias

Circadian Rhythm Sleep-Wake Disorders

Persistent pattern of sleep disruption due to alteration of circadian system leading to excessive sleepiness or insomnia or both:

Types:

- Delayed sleep phase
- Advanced sleep phase
- Irregular sleep-wake type
- Shift work type

Parasomnias

Non-REM Sleep Arousal Disorders

Recurrent episodes of incomplete awakening from sleep, usually in first 1/3 of major sleep episode with one of the following:

- Sleepwalking
- Sleep terrors

Parasomnias

Nightmare Disorder

Repeated occurrences of extended, extremely dysphoric, and well-remembered dreams involving threats to survival, security or physical integrity usually occurring in second ½ of major sleep episode

Parasomnias

REM Movement Sleep Behavior Disorder

Repeated episodes of arousal during sleep associated with vocalization and/or complex motor behavior. Occur during REM sleep.

May involve jumping, falling, running, punching, kicking, screaming, speaking

Parasomnias

Restless Legs Syndrome

An urge to move the legs, usually accompanied by or in response to discomfort characterized by:

- Urge to move legs begins or worsens at rest or inactivity
- Urge is partially removed by the movement
- Urge worsens in evening or at night

Pharmacology

- Antihistamines – Benadryl
- Melatonin
- Hypnotic – Benzodiazepines
- Non-Benzodiazepine Releasing Agents – Z drugs (Zaleplon, Zolpidem)
- Alpha Agonists – Clonidine
- Antidepressant
- Antipsychotics
- Trazodone